

IN THE CLAIMS

1. (Currently amended) Polyphase filter comprising:

at least two filters, each for filtering an input signals to produce a filtered signal at an outputs;

at least two integrators, each corresponding to one of said filters and coupled to said one of said filters ~~for~~ integrating said filtered signals;

wherein ~~an~~ said output of each integrator is coupled via an impedance element to ~~at least one of an input of an adjacent integrator of said at least two integrators and an output of an adjacent integrator.~~

2. (Currently amended) Polyphase filter according to claim 1, wherein ~~an output of an integrator is coupled~~ said impedance element is via a conductance element ~~to an input of an adjacent integrator.~~

3. (Currently amended) Polyphase filter according to claim 2, wherein ~~an output of an integrator is coupled via~~ said impedance element is a capacitor ~~to an input of an adjacent integrator.~~

4. (Currently amended) Polyphase filter according to claim 3, wherein ~~an~~ said integrator comprises an amplifier with an admittance element in a feedback path thereof.

5. (Original) Polyphase filter according to claim 4, wherein ~~a~~ each filter comprises a passive element and wherein an amplifier comprises an operational amplifier.

6. (Original) Polyphase filter according to claim 5, wherein ~~a~~ said passive element comprises a resistor and a capacitor and wherein ~~an~~ said admittance element comprises a capacitor and a conductance element coupled in parallel to each other.

7. (Currently amended) Polyphase filter according to claim 6, ~~wherein said polyphase filter comprises~~ further comprising means coupled between adjacent integrators for

performing at least one signal inversion between said adjacent integrators.

8. (Canceled)

9. (Canceled)